

## *Virtual Industrial Visit to Biotechnology and Life-Science Industries*

[Biocon Biologics](#) / [Our Capabilities](#) / [Global Scale](#)

[Manufacturing](#) / **Virtual Tour**

**Date:** 01 October 2026, 9:30AM to 10:30AM

**Venue:** EEE Block, K L University

### **1. Introduction**

Virtual laboratories are technology-enabled learning environments that allow students to observe, understand, and practice laboratory concepts through computer-based simulations and digital demonstrations. They provide an interactive supplement to conventional laboratory education and can help students understand experimental procedures, instruments, observations, and scientific concepts in a structured and accessible manner.

### **2. Purpose of the Session**

The uploaded document records a classroom session focused on virtual laboratories. The photographs show a faculty member conducting a presentation using a projector while students attend the session. The session appears to have been organized to introduce students to the concept and educational use of virtual laboratory resources.

### **Virtual Tour**

Step inside Biocon Biologics and explore our world-class facilities through a virtual tour that offers an in-depth look at our cutting-edge manufacturing capabilities. From state-of-the-art R&D centers to advanced biomanufacturing units, this immersive experience showcases our commitment to quality, innovation, and global standards in biologics production.

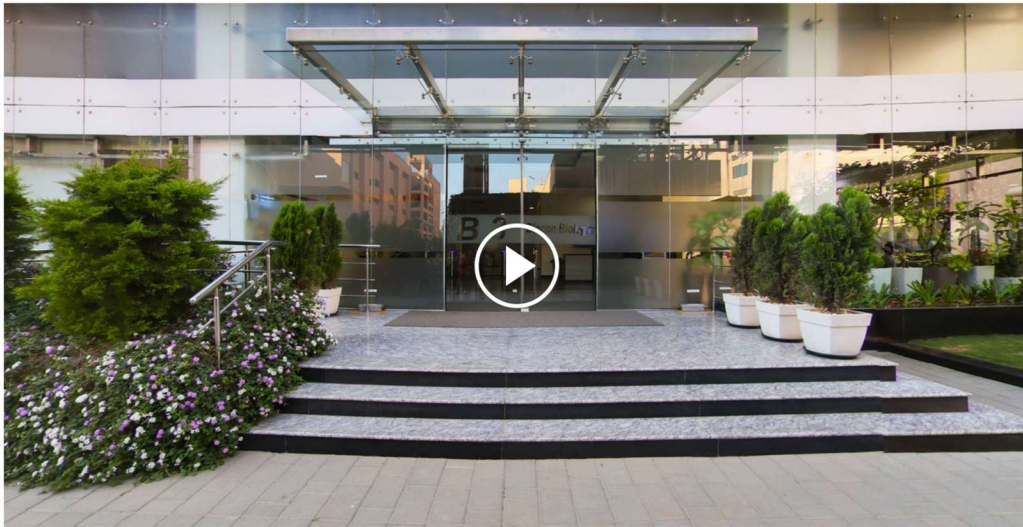
Discover how we bring science to life, ensuring the highest levels of precision, compliance, and efficiency in delivering affordable, life-saving therapies to patients worldwide.

**Session includes:**

- Brief introduction to the organization and its biotechnology operations
- Virtual tour of relevant R&D/manufacturing/quality-control facilities
- Overview of upstream and downstream processing, wherever applicable
- Quality Control (QC), Quality Assurance (QA), GMP and biosafety practices
- Applications of biotechnology in commercial production



**Drug Substance, Drug Product & Devices Facility: B1 & B2**



**Drug Substance Facility - B3**

### **3. Objectives**

- To introduce students to the concept of virtual laboratories.
- To explain how digital and simulation-based laboratory learning can complement practical classes.
- To demonstrate the use of computer-based laboratory resources through a projected presentation.
- To improve students' understanding of laboratory procedures and scientific concepts using visual and interactive learning.
- To encourage students to use technology as a supporting tool for laboratory education.

### **4. Session Details and Observations**

The photographs in the source document were captured at K L University, Vaddeswaram, Andhra Pradesh. The images show a faculty member presenting material on a projection screen in a classroom, with students participating in the session. The session was conducted on 01 October 2026. The photographs indicate that the presentation involved visual material related to laboratory environments and virtual laboratory learning.

The session format was primarily demonstration- and presentation-based. Students were seated in the classroom while the instructor explained the displayed material. The use of a projector provided a common visual reference for the class and supported the explanation of virtual laboratory concepts.

### **5. Importance of Virtual Laboratories**

- Virtual laboratories can provide students with a safe environment for learning and familiarization with experiments.
- They can support learning when physical laboratory facilities, equipment, or materials are limited.
- Students can review procedures and concepts repeatedly, which can reinforce theoretical understanding.
- Visual simulations can help students understand laboratory workflows before performing practical work.
- They can complement conventional wet-lab sessions rather than completely replacing hands-on laboratory experience.

### **6. Relevance to Biotechnology Education**

For biotechnology students, virtual laboratory resources can be useful for understanding experimental workflows, laboratory safety, basic instrumentation, molecular biology procedures, cell and tissue

culture concepts, analytical techniques, and other laboratory-based topics. Simulated demonstrations can help students prepare for practical sessions by giving them an overview of the sequence of steps and expected observations. The uploaded source, however, does not specify particular biotechnology experiments or a named virtual-lab platform; therefore, no specific experiment is attributed to the session.

## **7. Advantages**

- Accessible learning support beyond the physical laboratory.
- Opportunity to visualize complex procedures and concepts.
- Useful for preparation and revision before practical classes.
- Reduced risk while learning the sequence of an unfamiliar procedure.
- Can encourage independent and technology-supported learning.

## **8. Limitations**

Virtual laboratories cannot reproduce every aspect of physical laboratory work. They may not fully develop hands-on skills such as handling biological samples, operating real instruments, maintaining sterile conditions, troubleshooting equipment, or responding to unexpected experimental results. Therefore, virtual laboratory learning is most effective when used together with supervised practical training.

## **9. Conclusion**

The session documented in the uploaded photographs provided an introduction and visual demonstration of virtual laboratory-based learning at K L University. The classroom presentation and student participation indicate an academic awareness activity aimed at using digital resources to support laboratory education. Virtual laboratories can strengthen conceptual understanding and practical preparation, while conventional laboratory sessions remain important for developing hands-on experimental skills.



*Figure 1: Photograph from the Virtual Labs session at K L University.*



*Figure 2: Photograph from the Virtual Labs session at K L University.*



*Figure 3: Photograph from the Virtual Labs session at K L University.*



*Figure 4: Photograph from the Virtual Labs session at K L University.*



*Figure 5: Photograph from the Virtual Labs session at K L University.*